CLAIMS

Therefore, the following is claimed:

Sub B4 1. A system for determining and predicting performance of a communication device, comprising:

means for specifying a report period, said report period corresponding to a reporting period of interest;

means for specifying a plurality of summary periods, each said summary period corresponding to a portion of said reporting period;

means for processing a retrieved plurality of selected data parameters into a plurality of performance parameters corresponding to actual performance of said communication device during each of said summary periods and a plurality of trend parameters to predict future performance of said communication device; and

means for presenting and displaying said plurality of performance parameters and said plurality of trend parameters in a trend report.

2. The system of claim 1, further comprising a means for recommending a performance rating based upon said plurality of trend parameters.

3. The system of claim 1, wherein at least one of said plurality of data parameters is a burst statistic.

4. The system of claim 3, further comprising a means for specifying the number of said plurality of burst ranges.

5. The system of claim 3, further comprising a means for specifying said percentage range for each one of said plurality of burst ranges.

6. The system of claim 3, wherein said processing means further comprises a burst range trending means which predicts future performance of said communication device relative to each said burst range.

7. The system of claim 6, wherein at least one of said plurality of burst ranges is a total burst range corresponding to the total number of all bits transmitted during each of said plurality of summary periods.

8. The system of claim 1, wherein said processing means determines said plurality of trend parameters using a statistical regression algorithm.

9. The system of claim 8, wherein said statistical regression algorithm is a linear regression algorithm.

10. The system of claim 8, wherein said processing means further process said plurality of trend parameters to predict the time at which capacity of said communication device should be changed.

11. The system of claim 1, wherein said performance rating corresponds to a port speed of a port residing in said communications device, wherein said port speed corresponds to the rate at which data is transmitted through said port.

12. A system for determining and predicting performance of a communication device, comprising:

a data poller, wherein said data poller collects a plurality of data parameters from said communication device;

a database which stores said data parameters;

a user interface, wherein a user specifies a report period, said report period corresponding to a reporting period of interest, and said user specifies a plurality of summary periods, each said summary period corresponding to a portion of said reporting period;

a processor, wherein said processor retrieves a plurality of selected data parameters from said database such that said plurality of selected data parameters corresponds to said plurality of summary periods, and wherein said processor processes said plurality of selected data parameters into a plurality of performance parameters which correspond to actual performance of said communication device during each of said summary periods, and wherein said processor trends said plurality of performance parameters into a plurality of trend parameters to predict future performance of said communication device;

a data presentation module, said module presents said plurality of processed performance parameters and said plurality of trend parameters in a trend report; and

a graphical user interface which displays said trend report.

13. The system of claim 12, wherein said processor recommends a performance rating based upon said plurality of trend parameters.

14. The system of claim 12, wherein at least one of said plurality of data parameters is a burst statistic.

15. The system of claim 14, wherein a user specifies via said user interface the number of said plurality of burst ranges.

16. The system of claim 14, wherein a user specifies via said user interface said percentage range for each said burst range.

17. The system of claim 14, wherein said processor further trends each said burst range to predict future performance of said communication device relative to each said burst range.

18. The system of claim 17, wherein at least one of said burst ranges is a total burst range corresponding to the total number of all bits transmitted during each of said plurality of summary periods.

19. The system of claim 12, wherein said processor generates said plurality of trend parameters using a statistical regression algorithm.

20. The system of claim 19, wherein said statistical regression algorithm is a linear regression algorithm.

21. The system of claim 19, wherein said plurality of trend parameters predict the time at which capacity of said communication device should be generated.

22. The system of claim 12, wherein said performance rating corresponds to a port speed of a port residing in said communications device, wherein said port speed corresponds to the rate at which data is transmitted through said port.

23. A method for determining and predicting performance of a communication device, the method comprising the steps of:

collecting a plurality of data parameters from said communication device;

specifying a report period, said report period corresponding to a reporting period of interest and a plurality of summary periods, each said summary period corresponding to a portion of said reporting period;

processing said plurality of selected data parameters into a plurality of performance parameters corresponding to actual performance of said communication device during each of said summary periods, and processing said plurality of performance parameters into a plurality of trend parameters to predict future performance of said communication device; and

presenting said plurality of performance parameters and said plurality of trend parameters in a trend report.

24. The system of claim 23, further comprising the step of recommending a performance rating based upon said plurality of trend parameters.

25. The system of claim 23, wherein at least one of said plurality of data parameters is a burst statistic.

26. The system of claim 25, further comprising a step of specifying the number of said plurality of burst ranges.

27. The system of claim 25, further comprising a step of specifying said percentage range for each said burst range.

28. The system of claim 27, wherein said processing step further comprises a burst range trending step which predicts future performance of said communication device relative to each one of said plurality of burst ranges.

29. The system of claim 28, wherein at least one of said burst ranges is a total burst range corresponding to the total number of all bits transmitted during each of said plurality of summary periods.

30. The system of claim 23, wherein said processing step determines said plurality of trend parameters using a statistical regression algorithm.

31. The system of claim 30, wherein said statistical regression algorithm is a linear regression algorithm.

32. The system of claim 30, wherein said processing step further includes the step of predicting the time at which capacity of said communication device should be changed.

33. The system of claim 23, wherein said performance rating corresponds to a port speed of a port residing in said communications device, wherein said port speed corresponds to the rate at which data is transmitted through said port.

34. A computer readable medium having a program for determining and predicting performance of a communication device, the program comprising logic configured to perform the steps of:

receiving a specification of a report period from a user, said report period corresponding to a reporting period of interest;

receiving a specification for a plurality of summary periods, each said summary period corresponding to a portion of said reporting period;

retrieving a plurality of selected data parameters, said plurality of selected data parameters corresponding to said plurality of summary periods;

processing said plurality of selected data parameters into a plurality of performance parameters corresponding to actual performance of said communication device during each of said summary periods;

trending said plurality of performance parameters into a plurality of trend parameters to predict future performance of said communication device; and

presenting said plurality of processed performance parameters and said plurality of trend parameters in a trend report.

35. The computer readable medium of claim 34, further comprising logic configured to perform the step of recommending a performance rating based upon said plurality of trend parameters.

36. A method for determining and predicting performance of a communication device, the method comprising the steps of:

retrieving a plurality of selected data parameters from a communication device, such that said plurality of selected data parameters corresponds to a plurality of summary periods;

processing said plurality of selected data parameters into a plurality of performance parameters corresponding to actual performance of said communication device during each of said summary periods;

trending said plurality of performance parameters into a plurality of trend parameters to predict future performance of said communication device; and

recommending a performance rating based upon said trend parameters.

37. A system for determining and predicting performance of a communication device, comprising

a user interface, wherein a user specifies a report period, said report period corresponding to a reporting period of interest, and said user specifies a plurality of summary periods, each said summary period corresponding to a portion of said reporting period; and

a processor, wherein said processor detects a plurality of selected data parameters from said communications device such that said plurality of selected data parameters corresponds to said plurality of summary periods, and wherein said processor processes said plurality of selected data parameters into a plurality of performance parameters which correspond to actual performance of said communication device during each of said summary periods, and wherein said processor trends said plurality of performance parameters into a plurality of trend parameters to predict future performance of said communication device, and wherein said processor recommends a performance rating based upon said plurality of trend parameters.

38. A system for determining and predicting performance of a communication device, comprising:

means for collecting a plurality of data parameters from said communication device;

means for storing said data parameters;

means for specifying a report period, said report period corresponding to a reporting period of interest;

means for specifying a plurality of summary periods, each said summary period corresponding to a portion of said reporting period;

means for retrieving a plurality of selected data parameters from said storing means, said plurality of selected data parameters corresponding to said plurality of summary periods;

means for processing said plurality of selected data parameters into a plurality of performance parameters corresponding to actual performance of said communication device during each of said summary periods;

means for trending said plurality of performance parameters into a plurality of trend parameters to predict future performance of said communication device;

means for recommending a performance rating based upon said plurality of trend parameters;

means for presenting said plurality of processed performance parameters and said plurality of trend parameters in a trend report; and

means for displaying said trend report.

39. A method for determining and predicting performance of a communication device, the method comprising the steps of:

collecting a plurality of data parameters from said communication device;

storing said data parameters;

specifying a report period, said report period corresponding to a reporting period of interest;

specifying a plurality of summary periods, each said summary period corresponding to a portion of said reporting period;

retrieving a plurality of selected data parameters from storage, said plurality of selected data parameters corresponding to said plurality of summary periods;

processing said plurality of selected data parameters into a plurality of performance parameters corresponding to actual performance of said communication device during each of said summary periods;

trending said plurality of performance parameters into a plurality of trend parameters to predict future performance of said communication device;

recommending a performance rating based upon said plurality of trend parameters;

presenting said plurality of processed performance parameters and said plurality of trend parameters in a trend report; and

displaying said trend report.

40. A transmitter, comprising:

a user interface, wherein a user specifies a report period, said report period corresponding to a reporting period of interest, and said user specifies a plurality of summary periods, each said summary period corresponding to a portion of said reporting period;

a processor, wherein said processor retrieves a plurality of selected data parameters such that said plurality of selected data parameters corresponds to said plurality of summary periods, and wherein said processor processes said plurality of selected data parameters into a plurality of performance parameters which correspond to actual performance of said communication device during each of said summary periods, and wherein said processor trends said plurality of performance parameters into a plurality of trend parameters to predict future performance of said communication device, and wherein said processor recommends a performance rating based upon said plurality of trend parameters; and

a data presentation module, said module presents said plurality of processed performance parameters and said plurality of trend parameters in a trend report.

41. A receiver, comprising:

a user interface, wherein a user specifies a report period, said report period corresponding to a reporting period of interest, and said user specifies a plurality of summary periods, each said summary period corresponding to a portion of said reporting period;

a processor, wherein said processor retrieves a plurality of selected data parameters such that said plurality of selected data parameters corresponds to said plurality of summary periods, and wherein said processor processes said plurality of selected data parameters into a plurality of performance parameters which correspond to actual performance of said communication device during each of said summary periods, and wherein said processor trends said plurality of performance parameters into a plurality of trend parameters to predict future performance of said communication device, and wherein said processor recommends a performance rating based upon said plurality of trend parameters; and

a data presentation module, said module presents said plurality of processed performance parameters and said plurality of trend.